



HANDHELD SPECTROPHOTOMETER BJJH1B1 (BHSP-901)

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DUAL OPTICAL PATHS FLAT GRATING SPECTROPHOTOMETER

The versatile, rugged and easy-to-use piece of test equipment color spectrometer, a product of three year dedicated R&D, It features a 1000 line precision blazed grating for light splitting and a double row 40 group silicon photodiode array sensor. This large area sensor ensures no saturation under strong light, high sensitivity to weak light, and a broad spectral response, guaranteeing fast, accurate, stable, and consistent measurements.

1000 line precision blazed grating for light splitting and a double row 40 group silicon photodiode array sensor

D/8 geometric optical illumination (SCI/SCE) measurement structure

Measure SCI and SCE reflectance data for both regular and fluorescent samples

Repeatability ($\Delta E_{ab} \leq 0.03$) and inter instrument error ($\Delta E_{ab} \leq 0.15$)

Three measuring apertures ($\phi 8\text{mm}$, $\phi 4\text{mm}$, $1 \times 3\text{mm}$)

Fast: capture times less than one second



Silicon photodiode array (double 40 array) sensor:

The larger area of the double 40 array sensor, the strong light will not saturation, weak light sensitivity and a wider spectrum response range, to ensure the instrument measurement speed, accuracy, stability and consistency, master the core technology, and the international standard of the same platform, complete compatibility.

Professional whiteboard, a lifetime never change color commitment

Fast charging:

Special fast charging mode, low voltage to remind charging or use off-duty time charging, to ensure the capacity and life of the battery (note: frequent repeated battery charging causes more harm).

Equipped with three measuring apertures to meet the most samples measurement:

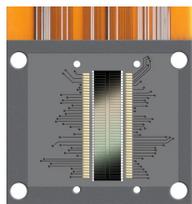
SPECIFICATIONS

Model	BJH1B1
Old Model	BHSP-901
Optical Geometry	Reflectance: D/8 (Diffuse illumination, 8° acceptance) SCI & SCE; Include UV/Exclude UV
Standards Compliant	CIE No.15, GB/T 3978, GB 2893, GB/T 18833, ISO77241, ASTM E1164, DIN5033 Teil7
Integrating Sphere Size	$\phi 40$ mm
Light Source	Combined full spectrum LED light source, UV light source
Spectroscopic Method	Flat Grating
Sensor	Silicon photodiode array (double row 40 groups)
Spectral Range	400-700 nm
Wavelength Pitch	10 nm
Semibandwidth	10 nm
Photometric Range	0-200%
Measurement Aperture	Three apertures: MAV: $\phi 8$ mm/ $\phi 10$ mm; SAV: $\phi 4$ mm/ $\phi 5$ mm; LAV: 1×3 mm (slightly worse accuracy; for color difference test)
Specular Component	SCI & SCE
Color Spaces	CIE LAB, XYZ, Yxy, Lch, CIE LUV, sRGB, Hunter Lab, LRV, β_{xy} , DIN Lab99, Munsell (C/2)
Color difference formulas	ΔE^*_{ab} , ΔE^*_{uv} , ΔE^*_{94} , $\Delta E^*_{cmc}(2:1)$, $\Delta E^*_{cmc}(1:1)$, ΔE^*_{00} , DIN ΔE_{99} , ΔE (Hunter)
Other Colorimetric Index	WI (ASTM E313, CIE/ISO, AATCC, Hunter), YI (ASTM D1925, ASTM 313), MI (Metamerism Index), Staining Fastness, Color Fastness, Color Strength, Opacity, 8° Glossiness, 555 tone classification
Observer Angle	2° / 10°
Illuminant	D65, A, C, D50, D55, D75, F1, F2 (CWF), F3, F4, F5, F6, F7 (DLF), F8, F9, F10 (TPL5), F11 (TL84), F12 (TL83/U30)
Displayed Data	Spectrogram/Values, Samples Chromaticity Values, Color Difference Values/Graph, PASS/FAIL Result, Color Offset

Measurement Time	About 1.5 s (SCI & SCE about 3.2 s)
Repeatability	Spectral reflectance: MAV/SCI, std. dev. within 0.08% (400-700 nm: within 0.18%); Chromaticity value: MAV/SCI, within ΔE^*ab 0.03 (after calibration; measure the average whiteboard 30x at 5 s intervals)
Interinstrument agreement	MAV/SCI, within ΔE^*ab 0.15 (Average for 12 BCRA Series II color tiles)
Measurement Mode	Single measurement, Average measurement (2-99 times)
Locating Method	Camera locating, stabilizer cross position
Dimension (LxWxH)	129 x 76 x 217 mm
Weight	Approx. 600 g
Battery	Li-ion battery; 6000 measurements within 8 hours
Lamp Life	5 years; >3 million measurements
Screen	3.5-inch TFT color LCD; capacitive touch screen
Interface	USB, Bluetooth
Data storage	Standard: 1,000 pcs; Sample: 30,000 pcs (one PCS can include both SCI & SCE)
Languages	Simplified Chinese, English, Traditional Chinese
Operating Environment	Temp: 0-40 °C; Humidity: 0-85% (no condensation); Altitude <2000 m
Storage Environment	Temp: -20-50 °C; Humidity: 0-85% (no condensation)
Standard Accessories	Power Adapter; User Guide; PC Software (download From office website); USB cable; White & Black Calibration Cavity; Protective Cover; Wrist strap; 8 mm flat aperture; 8 mm tip aperture; 4 mm flat aperture; 4 mm tip aperture; 1x3 mm tip aperture
Optional Accessories	Micro Printer; Powder test box
Alt Name	Handheld Spectrophotometer



FEATURES



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Fast charging:

Special fast charging mode, low voltage to remind charging or use off-duty time charging, to ensure the capacity and life of the battery (note: frequent repeated battery charging causes more harm).



Equipped with three measuring apertures to meet the most samples measurement:

The Factory configuration of high performance spectrophotometer is with \varnothing 8mm flat aperture, \varnothing 8mm tip aperture, \varnothing 4mm flat aperture, \varnothing 4mm tip aperture, \varnothing 1x3mm aperture, a total of five measuring apertures, to meet the most samples measurement.



Camera positioning can clearly observe the measured area:

Spectrophotometer built-in camera positioning, through the camera real-time view, can accurately determine whether the object measured part is the target center, improving the measurement efficiency and accuracy.



PC software has powerful function expansion:

SQCX quality management software with spectrophotometer is suitable for quality monitoring and color data management of various industries. Digitize user data color management.

APPLICATIONS

Widely used in plastic electronics, paint coatings, textile printing and dyeing, printing, automotive, medical, cosmetics, and food industries



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